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APPLICATIONS OF GPS IN OPERATION DESERT CLEAN SWEEP<sup>1</sup>

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APPLICATIONS OF GPS IN OPERATION DESERT CLEAN SWEEP<sup>1</sup>

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## **Applications of GPS in Operation Desert Clean Sweep<sup>1</sup>**

Following Operation Desert Storm, Kuwait's territory was divided into seven regions, and the seven members of the multinational force, including the United States, France, Egypt, Bangladesh, Pakistan, and Turkey, were each made responsible for battlefield cleanup in a region. This cleanup consisted of clearing away bombs and mines, demolishing bunkers, and other work to restore these areas to their pre-war condition. This operation was called Operation Desert Clean Sweep.

The Conventional Munitions Systems company (CMS) was in charge of the 3126 square kilometer region for which the United States was responsible, which included a 146 square kilometer mine field. Its main missions were to determine the positions of duds and move them away, to recover discarded tanks and trucks, and to demolish bunkers. To make cleanup more convenient, CMS divided its region into 36 smaller areas. CMS employed 150 American demolition experts. According to estimates, there were 1.25 million unexploded bombs in this area and 500,000 mines of sixteen different types. CMS used the satellite navigation global positioning system (GPS) in this cleanup project to position objects to be cleaned up. CMS's method was to have cleanup personnel go on foot or by small truck to carry out on-the-spot surface investigations, use GPS receivers for positioning after finding target objects, and input relevant information into a computer. This information included the positions of target objects, their type, their quantity, which group found them, and other data and information.

This project has already ended. Munitions experts used the above-mentioned data to carry out on-the-spot detonation of duds or mines, or used appropriate machinery to concentrate them and dispose of them together. Because GPS was adopted, the cleanup work went smoothly, and few people were injured. As of today, only one American demolition expert lost his life.

(reported by He Gui)

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<sup>1</sup> I am unfamiliar with this operation – it could also have been called "Operation Desert Cleanup."

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